

Top Acne Treatments 2021

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There are a variety of exciting new therapies available to treat acne. There are several treatment algorithms available, and therapy is guided by the patient's acne severity and response to previous agents. Topicals are frequently administered as they target different segments of the acne pathway. The underlying mechanism of acne vulgaris includes subclinical inflammation within an emerging acne lesion, follicular hyperkeratinization (comedone formation), and neutrophilic and lymphocytic infiltration. Over time, the lesion will resolve and return to skin with a normal appearance, or persist as either erythema, hyperpigmentation, or a scar. Cutibacterium acnes bacteria are also involved in the pathogenesis of acne.

Topical retinoids are the foundation of acne treatment: they downregulate toll-like receptors (reduce inflammation), decrease keratinization (reduce comedone formation), and inhibit matrix metalloproteinases and collagenolysis (reduce scarring). Tretinoin 0.05% lotion (Altreno) is formulated in a polymeric emulsion that solubilizes the drug and creates a honeycomb mesh, allowing for even distribution on the skin surface. This translates to excellent delivery and tolerability. The vehicle is barrier-friendly and does not increase transepidermal water loss or decrease skin's water content. Post hoc analysis confirmed the efficacy and safety of tretinoin in a variety of populations.

Tazarotene 0.1% foam was well-liked by patients given its quick onset of action. Tazarotene 0.045% lotion (Arazlo) consists of a polymeric emulsion with a honeycomb mesh; studies revealed similar efficacy and more favorable tolerability when compared to conventional tazarotene 0.1% cream. Phase 3 clinical studies of Trifarotene (AKLIEF), a RAR γ -selective topical retinoid, demonstrated its efficacy and tolerability in moderate facial and truncal acne. Advances in oral isotretinoin include micronized isotretinoin, which increases gastrointestinal absorption in the absence of a high-fat meal, with a greater systemic exposure and lower rate of relapse.

Benzoyl Peroxide (BPO) 5.5% over-the-counter (Effaclar Duo) was shown to be as effective as a clindamycin-BPO combination. Currently in development by Sol-Gel is an encapsulated BPO, which leads to slower drug release and decreased irritation. Minocycline 4% foam once daily was effective when compared to vehicle, leading to high concentrations in the skin but not in the blood. By limiting systemic exposure, it appears that antibiotic resistance may be limited. Clascoterone 1% cream (Winlevi) is the first FDA-approved topical androgen receptor inhibitor. By blocking the androgen receptor, this agent limits sebum production and cytokines. Studies revealed Winlevi's favorable success on the Investigator's Global Assessment tool with absolute acne lesion change and percent reductions in acne lesions. Winlevi is approved for ages 12 and older for moderate to severe acne vulgaris. Topical azelaic acid 15% foam, dapsone 7.5% gel, and BPO 9.8% emollient foam are all available treatment options for truncal acne.

Sarecycline (Seysara) is an oral antibiotic with high activity against cutibacterium acnes and has been shown effective for truncal acne. Minocycline (Minolira) biphasic delivery has both immediate and sustained release to stabilize blood levels.